

CLAIMS:

1. A method for encoding a stream of bits of a signal relating to a binary source into a stream of bits of a signal relating to a binary channel, the binary source comprising a main source and a secondary source, the main source being encoded in a main channel by multi-level coding and the secondary source being encoded in a secondary channel, the

5 secondary channel being embedded in the main channel in order to form the binary channel, characterized in that the secondary channel is divided in at least a first section comprising user data and a second section comprising non user data.

10 2. Method according to claim 1, wherein the second section comprises the lead-in section of the stream of bits of the signal relating to the secondary source.

15 3. Method according to claim 1 or 2 wherein the signal related to the main source is encoded in runlengths all having the same length In.

15 4. Method according to claim 3, wherein In=7.

20 5. Method according to any of the claims 1-4, wherein the non user data are authenticity data.

20 6. An encoder comprising an input for receiving a stream of bits of a signal relating to a binary source and an output for providing a stream of bits of a signal relating to a binary channel, the binary source comprising a main source and a secondary source, the encoder comprising means for encoding the main source in a main channel; means for encoding the secondary source in a secondary channel, and means for embedding the
25 secondary channel in the main channel by means of multi-level coding in order to form the binary channel, wherein means are provided for dividing the secondary channel in at least a first section comprising user data and a second section comprising non user data.

7. Encoder according to claim 6, wherein the second section comprises the lead-in section of the stream of bits of the signal relating to the secondary source.

8. Encoder according to claim 6 or 7 wherein the signal related to the main source is encoded in runlengths all having the same length In.

9. Method for decoding a stream of bits of a signal relating to a binary channel into a stream of bits of a signal relating to a binary source, the binary channel comprising a main channel and a secondary channel, the secondary channel being embedded in the main channel via multi-level coding, and a stream of corrected bits of the binary channel relating to the main channel being used for correcting errors in the stream of bits of the binary channel relating to the secondary channel, wherein the stream of bits of the signal relating to the binary channel is encoded in accordance with the method of any of the claims 1-5.

15 10. A device for decoding a stream of bits of a signal relating to a binary channel into a stream of bits of a signal relating to a binary source, which device comprises decoding means conceived to decode a main channel, the decoding means being also conceived to decode a secondary channel, the secondary channel being embedded in the main channel, and to correct errors in the stream of bits of the binary channel relating to the secondary channel using a stream of corrected bits of the binary channel relating to the main channel, wherein said decoding means further are conceived to decode non-user bits in the secondary channel.

20 11. A device according to claim 10, wherein the device further comprises reading means for reading out an information carrier to obtain the stream of bits of the binary channel signal.

25 12. A device according to claim 10, wherein the non user bits comprise authenticity data and means are provided to detect errors in the decoded non user data and to provide a signal when the number of errors exceeds a predetermined value.

30 13. A record carrier of the optical readable type in which the information has been recorded as a pattern of optically detectable marks arranged along a track, wherein the detectable marks comprise main channel bits and secondary channel bits, which are

embedded in the main channel bits, the secondary channel bits comprising at least a first section comprising user data and a second section comprising non user data.

14. A record carrier according to claim 13, wherein the second section comprises
5 the lead-in section of the stream of bits of a signal relating to a secondary source that has
been encoded into the secondary channel.